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XIII.—*Notes on Mashonaland Birds.*

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THE ornithology of Mashonaland appears to have received comparatively little attention since our veteran ornithologist Mr. Thomas Ayres, of Potchefstroom, accompanied the Jameson expedition down the Umfuli river nearly 20 years ago, and I therefore venture to offer a somewhat fuller list of the birds of this country, as the result of intermittent observations since 1893. The list, however, does not profess to be by any means complete, for, apart from the fact that I am unable to obtain access to the necessary books of reference, it is evident that there must be a considerable number of species still unrecorded, owing to the limited area that has been thoroughly searched. But the present paper may, perhaps, be useful as a basis for future workers.

The great majority of the birds here mentioned have been obtained in the neighbourhood of Salisbury, which has been fairly well worked, thanks to the assistance of my friend Mr. C. F. M. Swynnerton, who has devoted a good deal of time to the subject during the past year. Apart from this, I made a small collection on the Middle Umfuli in 1895, and have also obtained a few examples about the township of Mazoë, some 25 miles north of Salisbury. In the other portions of Mashonaland which I have visited, I have merely

made observations without being able to collect specimens. Considering the general configuration of the country, it cannot be considered as particularly rich in bird-life. As a whole, it is well watered and wooded throughout, and those large stretches of open treeless "veldt" which are found in so many parts of South Africa are here quite unknown; yet it is only in a few favoured localities that birds are really plentiful. A fact which must impress every observer is the way in which one may often walk for several miles through likely-looking country and scarcely see a bird; then suddenly one comes upon a troop of them, composed of Drongos, Tits, small Shrikes, Flycatchers, Warblers, and Buntings, keeping more or less together in a limited area. Personally I have little doubt that this may be attributed to the large number of birds of prey which occur here; so that the smaller birds find it advisable to associate as a means of protection, the Drongos acting as a sort of body-guard. My view is supported by the fact that the phenomenon is observed principally in the open forest which characterizes the greater part of the country; while, wherever the bush is more dense and affords better cover, the small birds are more generally distributed.

Owing to the pressure of other work, I have been unable to pay any special attention to nidification, and thus the majority of notes given on this subject are based on the observations of Mr. Swynnerton. My best thanks are due to Dr. R. Bowdler Sharpe for having worked out for me a collection of Salisbury birds sent to the British Museum in 1895, and a list of which was published in 'The Ibis' for 1896 (p. 241). I am likewise much indebted to Capt. G. E. Shelley for his kindness in furnishing me with much valuable information, including the identification of various specimens forwarded to him recently, and more particularly for revising the present notes prior to their publication.

1. *CORVUS CAPENSIS*. (African Rook.)

These birds are seen commonly round Salisbury in small flocks, but are more numerous about the outlying homesteads,

where they often do a good deal of damage to the farmers' crops. Unlike the European Rooks, they do not seem to be gregarious in their nesting-habits, although they will roost together in large numbers. Their food consists largely of insects, but they are also frugivorous, and when hard pressed I have even seen them eat carrion. Their flight is very much more laboured and cumbrous than that of the Crow. At times they fly in a very curious fashion, holding the wings well below the horizontal and fluttering them sharply, after the manner of the Bishop-birds. The eggs, which are four in number, are very variable, the ground-colour being either creamy white, dull purplish, or deep salmon-pink, with highly variable spots and blotches of reddish brown; the shape is also varied, the sides being sometimes distinctly compressed, with the narrow end very blunt, or the smaller end may be very rapidly narrowed from about the middle to quite a sharp point. Measurements (in millimetres) : 42.5×28 , 43 & 44×30 .

2. CORVUS SCAPULATUS. (White-bellied Crow.)

This fine Crow is abundant throughout the country, and always to be found in some numbers about the towns, where it shares with the Vultures the dead oxen and donkeys. But it does not disdain meaner fare, and may be seen searching cattle-droppings for coprophilous beetles or performing the office of tick-pecker to the donkeys. In Natal I have known these Crows to kill young lambs, or even sickly sheep, usually commencing by pecking out the eyes. Although their flight is somewhat heavy, they will often soar to a considerable height, and are capable of performing really graceful evolutions. They are very fond of bullying the weaker Hawks, such as Kestrels and Harriers, and I have even seen a single one pursuing a Bateleur Eagle.

3. CORVULTUR ALBICOLLIS. (White-necked Raven.)

This is considerably rarer than the preceding species, and I have rarely seen it in the immediate vicinity of Salisbury. It is, however, to be met with sparingly in most parts of the country, generally in pairs.

4. *ORIOLOUS NOTATUS*. (Andersson's Oriole.)

Not uncommon in the summer months, arriving about October. It is solitary in its habits, except for a short time after its arrival, when it remains in small flocks. Though certainly a wary bird, I have not found it so exceedingly shy as other observers appear to have done. Messrs. Sharpe and Layard state that *O. larvatus* is the only Oriole that breeds in South Africa; but *O. notatus* undoubtedly breeds in Mashonaland, and young birds with mottled breasts are fairly plentiful during January and February. I have little doubt the Golden Oriole (*O. galbula*) will also be found to occur in this country, and it may easily have been mistaken for the present species. The stomachs of Andersson's Orioles contained berries, beetles, and caterpillars.

5. *ORIOLOUS LARVATUS*. (Black-headed Oriole.)

Common during the winter months, but, with the exception of a few pairs, it evidently goes south to breed, shortly after the arrival of *O. notatus*. It is a much less wary bird than the latter, generally feeding on low bushes, or even on the ground, when its method of searching for insects somewhat recalls that of the Helmet-Shrikes. Although fond of berries, it is mainly insectivorous, remains of beetles and large hairy caterpillars having been found in the stomachs of the examples examined.

6. *DICRURUS LUDWIGI*. (Small Drongo.)

I have observed only a single pair of this species on the Makabusi river close to Salisbury, but they would not permit me to get within gunshot.

7. *BUCHANGA ASSIMILIS*. (African Drongo.)

Common and universally distributed. It is a bold and quarrelsome species, ever ready to attack any other bird larger than itself, whether Crow, Hawk, or Owl. It has a considerable variety of cries, most of which, however, are somewhat unmusical. In its food it is essentially insectivorous, perching on some projecting twig, making short excursions thence, and returning to the same station.

It lives principally on orthoptera and coleoptera, which are usually taken on or near the ground. The nest is built in trees, from 10 to 20 feet from the ground, suspended in a horizontal fork, and loosely composed of fine twigs, roots, and fibres. The eggs are three in number, and of two types of colouring: (1) ground-colour either white or salmon-pink, with pale brownish-red blotches and spots and faint underlying grey markings, chiefly collected in a broad ring round the larger end; (2) ground-colour pure white, with scattered minute black spots forming a loose irregular ring round the larger end. The shape varies also, some specimens being equally thick at both ends (22×18 mm.), and others distinctly tapering (25×17 mm.).

8. *EUROCEPHALUS ANGUITIMENS*. (Smith's Wood-Shrike.)

I have seen a single example of this bird, shot on the Hanyani river, 12 miles south of Salisbury.

9. *BRADYORNIS MURINUS*. (Mouse-coloured Wood-Shrike.)

A specimen obtained at Salisbury in 1894 was identified by Dr. Bowdler Sharpe as belonging to this species. I have not observed it since.

10. *BRADYORNIS MARIQUENSIS*. (Marico Wood-Shrike.)

A common woodland species, though of solitary habits. It prefers the lower branches of trees, where it sits gazing pensively downward, ready to pounce on any passing insect, though its movements are generally listless. It frequently feeds on the ground, and when flushed its flight is remarkably Finch-like. On one occasion I saw no fewer than five of these birds with three Drongos, sitting on a low bush by an ants'-nest, out of which a swarm was rushing aimlessly about, as is their custom after rain, and every few moments one of the birds would drop in their midst, snatch up a few, and hastily retreat to its perch, always with a number of ants attached to its legs, for these insects are very pugnacious. So preoccupied were the Shrikes that they allowed me to come within three or four yards without taking any notice of me. Stomachs contained ants, caterpillars, and beetles.

11. PRIONOPS TALACOMA. (South-African Helmet-Shrike.)

Not uncommon throughout the year in wooded localities, occurring in flocks of from six to twelve. They are indefatigable insect-hunters, searching for their prey close to or even on the ground. They are by no means shy, and may be readily approached. The flight is sustained only for a short distance, and a subdued but very pleasing call is frequently uttered, being generally started by one individual and at once taken up by the whole flock. The gizzards examined contained orthoptera and coleoptera.

12. SIGMODUS RETZII. (Retzius's Helmet-Shrike.)

I observed a pair of these birds in a flock of the preceding species at Mazoë last Christmas, but unfortunately failed to secure one. Mr. Ayres met with a few on the Umfuli river.

13. GRAUCALUS PECTORALIS. (Black-breasted Cuckoo-Shrike.)

Though generally distributed, this bird is by no means plentiful, being met with only singly or in pairs. When undisturbed it moves very leisurely, but on being frightened it takes a low swooping flight, though for no great distance, rising as it settles; thus recalling the Little Grey Goshawk (*Astur polyzonoides*), for which I have occasionally mistaken it. On the Umfuli river I obtained a female agreeing with the description in having the throat white, succeeded by a narrow crescent of clear grey, but I have never seen one with this colouring round Salisbury. I have in my collection a specimen, sexed as a female, which is coloured exactly like the male; moreover, if my memory serves, in all the pairs I saw last breeding-season both birds were coloured alike, and Mr. Swynnerton is of the same opinion. This Shrike is a very silent bird, only occasionally giving vent to a short, low whistle. In the stomachs examined I found locusts, grasshoppers, and beetles.

14. CAMPOPHAGA NIGRA. (Black Cuckoo-Shrike.)

Known to me by a single specimen only. The resemblance to the Common Drongo is so great that I passed over the bird, even after a hasty glance through the binoculars, but

on returning to the spot I was struck by the difference in its habits as it crept about in the undergrowth on a large termite-heap, and then recognized it as the present species. I can hardly doubt that this is a case of mimicry, for its resemblance to the fearless, bullying Drongo must be of great service to so feeble a bird, and there is a parallel instance in India in the Drongo-Cuckoo (*Surniculus lugubris*). The stomach contained a grasshopper, three small caterpillars, and two spiders.

15. *PACHYPRORA MOLITOR*. (White-flanked Flycatcher.)

Very common throughout the year, especially in mosasa-bush. The birds are usually seen in pairs, passing from tree to tree, diligently hunting for small insects of all kinds, and rising now and then to capture some flying beetle with a loud snap of the beak. They have several calls, some being rather harsh, but the most characteristic consists of three pleasant notes on a falling scale, uttered slowly one after the other.

16. *MUSCICAPA GRISOLA*. (Spotted Flycatcher.)

Only a single example of this common European migrant has come under my notice.

17. *PRATINCOLA TORQUATA*. (South-African Stonechat.)

Abundant throughout the year, frequenting low bushes in open country, especially along streams. Gizzards contained small beetles and ants.

18. *HYLIOTA AUSTRALIS*. (Mashona Flycatcher.)

A common resident, frequenting the open forests of mosasa-trees (*Brachystegia*), which afford a plentiful supply of small phytophagous beetles, especially during the spring months. It is by no means shy, as it diligently and methodically searches the twigs of the low trees and bushes, uttering its short call at intervals.

19. *TERPSIPHONE PERSPICILLATA*. (Paradise Flycatcher.)

These elegant little birds are not uncommon in the denser parts of the bush, and are occasionally met with in parties of

five or six, when their graceful gambols are very pretty to see, though their cries are harsh. Their food consists principally of flies, beetles, and flying termites, and they would appear to be at least partially migratory, for I have not yet met with them during the winter months.

20. *PHYLLOSCOPUS TROCHILUS*. (Willow-Warbler.)

Not uncommon, arriving from the north about October and leaving in April.

21. *GEOCICHLA LITSITSIRUPA*. (South-African Thrush.)

Not common, being generally found in small parties in the more secluded parts of the bush, where it seeks its food upon the ground. The stomachs examined contained grasshoppers, pentatomid bugs, and beetles.

22. *TURDUS LIBONYANUS*. (Kurrichaine Thrush.)

This bird is very scarce in the open forests, but wherever small streams overshadowed on either side by a line of dense bush occur it is not uncommon. Yet in such localities it is very difficult to obtain, as it is a wary bird and dives into the densest thickets at the least sign of danger. It feeds almost exclusively on the ground, eating coleoptera, caterpillars, grasshoppers, small millepedes, and even seeds. It has a short mellow song.

23. *MONTICOLA ANGOLENSIS*. (Angolan Rock-Thrush.)

This species, which has been identified by Capt. Shelley, has not been previously recorded from south of the Zambesi, though it is evidently resident here. It is not very common, being purely sylvan in its habits, feeding on the ground in the open bush, and taking to the trees immediately it is disturbed. The first specimen I obtained was a male, which was singing pleasantly at the summit of a tall tree. As a rule, this species appears to be solitary, but later in the season family parties of four or five may be seen, feeding on beetles, beetle-grubs, locusts, and ants.

In 1894 I shot an example of another species of Rock-Thrush at Salisbury, but could not then identify it, and unfortunately the skin could not be preserved.

24. *SAXICOLA PILEATA*. (Capped Wheatear.)

This Wheatear is plentiful as a migrant in our winter, arriving from the south in the end of May or beginning of June, nesting early in September, and departing southward about November. It frequents open country, sitting on termite-heaps or low bushes, but I have occasionally observed it on trees in the bush. The male is a delightful songster, usually singing as he hovers on quivering wings a few yards from the ground; he is fond of displaying himself before the female, running round her, bowing and scraping, drooping his wings and spreading his tail so as to show his pure white rump. This species breeds in holes in termite-heaps, and the food consists principally of ants and small beetles.

25. *PYCNONOTUS LAYARDI*. (Layard's Bulbul.)

Everywhere abundant, feeding on fruits and berries of all kinds, and being especially fond of the wild fig. Besides mobbing Hawks, as noted by Mr. Ayres, these birds will also worry tree-snakes, gathering round them and making a great din, just as fowls will do. The eggs are three in number, of a pinkish-white colour, variegated with large blotches of rich purplish brown and iron-grey, which are denser at the thick end. The size is variable, as may be seen from the following selected measurements:— 21×17 , 27×18 , 24×18 , 25×17 mm.

26. *COSSYPHA HEUGLINI*. (Heuglin's Chat-Thrush.)

Obtained by the Jameson expedition on the Umfuli river. I have not infrequently caught glimpses of birds of this genus, and probably this species, in the dense thickets along some small streams near Salisbury, but they are very wary, and I have so far failed to obtain one.

27. *THAMNOLEA CINNAMOMEIVENTRIS*. (White-shouldered Bush-Chat.)

This is a somewhat scarce and very local species, being only found among the picturesque kopjes of granite boulders so characteristic of many parts of Rhodesia. It is a sprightly

bird, ever on the move, and incessantly jerking its tail up and down as it runs rapidly about the rocks, among the inaccessible crevices of which it builds its nest. It is one of the finest song-birds we possess, both sexes having full, rich notes. It remains here throughout the year and feeds on beetles, ants, and the larvæ of ant-lions.

In the paper in 'The Ibis' mentioned above (1896, p. 242), this bird was referred to the subsp. *T. subrufipennis* Reich., but Capt. Shelley, who has kindly examined the specimens sent to the British Museum, tells me they are typical *T. cinnamomeiventris*.

28. *THAMNOLÆA SHELLEYI*. (Shelley's Bush-Chat.)

I observed several specimens of this fine Chat alighting on trees and stumps round the settlement at Hartley Hills, on the Umfuli, in July 1895, but have not seen it elsewhere.

29. *SCHÆNICOLA APICALIS*. (Fan-tailed Reed-Warbler.)

This curious little bird is not uncommon among the long grass and reeds in swampy places about Mazoë and Salisbury. Its flight is very weak and jerky, and it looks as though it were weighed down by its big broad tail, which is out of all proportion for so small a bird.

30. *CALAMONASTES FASCIOLATUS*. (Barred-breasted Fantail.)

This species is not very common, being somewhat secluded in its habits. It frequents low scrub, searching for small insects on the ground at the foot of the bushes, and is often difficult to flush.

31. *APALIS* sp. inc.

Mr. Swynnerton has obtained a single example of this species, which resembles *A. thoracica* in its general colouring, but has the vent lemon-yellow instead of rufous brown. He subsequently saw another example near Salisbury, and I observed one at Mazoë.

32. *SYLVIELLA RUFESCENS*. (Short-tailed Bush-Warbler.)

A generally-distributed resident, but not very common. It frequents low trees, about which it creeps actively, searching for insects on the branches and leaves.

33. *EREMOMELA FLAVIVENTRIS*. (Yellow-bellied Bush-Warbler.)

Fairly common in the open forests, where it searches the trees for small insects, in company with the Tits and White-eyes, which it closely resembles in habits.

34. *EREMOMELA SCOTOPS*. (Dusky-faced Bush-Warbler.)

Common; they occur in flocks of five to twenty individuals, and every now and then they commence a terrible hubbub, the whole flock apparently fighting and chasing one another round and round the trees with a harsh chattering note; in a few minutes the noise subsides, as they gradually settle down again to the business of insect-hunting, only to recommence quarrelling shortly afterwards.

35. *PRINIA MYSTACEA*. (Tawny-flanked Grass-Warbler.)

Fairly common, occurring occasionally among trees in thin bush as well as in the open grassy flats. The following is the description of the nest and eggs by Mr. Swynnerton:—
“A neat domed nest, slung between the stems of two or three weeds at the water’s edge, after the fashion of the English Reed-Warbler, and built almost entirely of a fine downy water-weed and a few thin grass-blades. The cup, which is very deep, was lined with very fine grasses, and contained four eggs, two measuring 17×12 and two 18×12 mm. The ground-colour of the eggs is pale salmon-buff, marbled and clouded with a deeper shade of the same colour, with blotches and curious pencillings (chiefly in circles round the egg) of different shades of reddish brown, nearly reaching black in intensity in places.

36. *CISTICOLA CINERASCENS*. (Grey Fantail.)

This species does not seem to be so plentiful as the other Fantails, and, as a rule, occurs only in the bush.

37. *CISTICOLA ABERRANS*. (Smith’s Fantail.)

Obtained on the Umfuli river by the Jameson expedition.

38. *CISTICOLA TERRESTRIS*. (Ground-Fantail.)

Common in open grassy flats. In proportion to its size this bird has a decidedly stronger flight than any of its congeners; it will sometimes rise to a considerable altitude

in a jerky erratic manner, making at intervals a loud snapping noise with its wings, which can be heard at a considerable distance, even when the bird is almost out of sight. It makes a beautiful little nest of spiders'-web and white down, in the shape of a long bag, open at the top, and attached at the sides to stems of long grass, which are drawn together all round, and thus conceal it. The eggs are usually four or five in number, but a nest I found at Estcourt, Natal, and off which I caught the female in a butterfly-net, contained seven; six of these being of the normal colour, white with rusty-brown blotches and underlying spots of purplish grey, while the seventh was white sparsely covered with small black spots.

39. *CISTICOLA NATALENSIS*. (Natal Fantail.)

A solitary bird, but fairly common, both in the open veldt and in bush, though preferring the former where the grass is long.

40. *CISTICOLA SUBRUFICAPILLA*. (Grey-backed Fantail.)

This species is the commonest of the genus round Salisbury, occurring right in the town and breeding in the small bushes that grow on the termite-heaps. The nest is fairly substantial, formed of woven grass, domed and with a slight porch; the outside is often bound with spiders'-web, and it is thickly lined with white down. The eggs are usually four in number and of a pale blue colour, with numerous small freckles and spots of rich purplish brown and pale yellowish brown, and underlying spots of violet-grey; the markings are chiefly confined to the larger end, often forming a zone, and occasionally a distinct cap. If the nest is disturbed the birds will often remove the eggs.

41. *PINARORNIS PLUMOSUS*. (Sooty-brown Chat-Thrush.)

Mr. Ayres observed only two examples of this rare bird on the Umfuli river.

42. *CRATEROPUS JARDINII*. (Jardine's Babbling Thrush.)

These noisy and restless birds are found commonly along all the streams in the country in flocks of six or eight, but they also occur among rocky kopjes at some distance from

water wherever there are thickets sufficiently dense to suit them. Their almost incessant harsh chatter becomes very wearisome after a time. They feed entirely on the ground, scratching noisily among the reeds or undergrowth. The stomachs examined contained chiefly ants, but also a few beetles and crickets.

43. *PARUS AFER*. (South-African Tit.)

Not uncommon in the mosasa-bush; it closely resembles the European Great Tit in general habits.

44. *PARUS NIGER*. (Black-and-White Tit.)

Noticeably scarcer than the preceding species, which it resembles in habits, though I have occasionally noticed a pair hawking for insects in the air, just like Flycatchers.

45. *PARUS PALLIDIVENTRIS*. (Pale-bellied Tit.)

This species, which has not previously been recorded to the south of the Zambesi, was kindly identified for me by Capt. Shelley. I shot one of a pair in August 1898 on a farm nine miles east of Salisbury, and subsequently observed another pair in October in the same locality, these being the only examples which have come under my notice. In both cases they were busily engaged in searching the young shoots of mosasa-trees for phytophagous beetles in true Tit-fashion, occasionally uttering a loud churring call, very similar to that of *P. niger*.

46. *ÆGITHALUS CAROLI*. (Andersson's Penduline Tit.)

This little bird is not uncommon, but seems to be more in evidence during the winter months. Three or four individuals are usually found together assiduously investigating low trees and bushes, but they are especially fond of several kinds of very tall flowers, on which they find an abundance of minute insects. I have heard only a faint chirping note uttered.

47. *TELEPHONUS ERYTHROPTERUS*. (Cape Red-winged Bush-Shrike.)

Recorded by Mr. Ayres from the Umfuli, but I have not yet succeeded in recognizing the species*.

* [Probably the same as *T. senegalus*, the next species.—EDD.]

48. *TELEPHONUS SENEGALUS*. (Common Red-winged Bush-Shrike.)

A plentiful resident, being generally found in pairs in the denser parts of the bush. It is fond of lurking on the ground among the thick shrubs growing on large ant-heaps, but takes at once to the trees when startled; the tail being broadly expanded in flight, which is of short duration. It has several harsh cries, but also utters a pleasing song, consisting of eight mellow notes, and one of its calls reminds one pleasantly of the alarm-chuckle of our Blackbird. Its food consists of beetles, grasshoppers, spiders, &c.

49. *LANIARIUS GUTTATUS*. (Pied Bush-Shrike.)

A common resident species, though more often heard than seen, on account of its skulking habits. It is especially partial to the dense growth along streams or the thickets on giant termite-heaps, such as are to be found along many of the rivers, and it is a matter of some difficulty to dislodge it from such positions. It is a thorough "duellist," like all its congeners, for the harsh "where, where!" of the female is answered with scarcely an intermission by the deep, ringing "here, here!" of the male; a very loud note, like "chk," or, again, a long drawn-out "mope," is also repeated at intervals. The stomachs of the birds examined contained beetles and moths.

50. *DRYOSOPUS CUBLA*. (Lesser Puff-backed Bush-Shrike.)

Not uncommon, but preferring the taller trees, among which the loud "tk, whí-w" of the male is a very familiar sound. It hunts energetically for insects among the leaves, also catching them on the wing; and, unlike Mr. Ayres, I have found it very far from shy or retiring in its habits. It makes a loud and characteristic whirring noise when flying.

51. *MALACONOTUS BLANCHOTI*. (Blanchot's Bush-Shrike.)

A single specimen of this shy bird has been shot by Mr. Swynnerton, and only one pair was met with by

Mr. Ayres on the Umfuli. The stomach of the former bird contained beetles and locusts, and Mr. Ayres notes that the crop of his bird contained a small mouse.

52. *MALACONOTUS SULPHUREIPECTUS.* (Yellow-fronted Bush-Shrike.)

This scarce bird was also obtained on the Umfuli river by Mr. Ayres.

53. *NILAUS CAPENSIS.* (Brubru Bush-Shrike.)

A generally distributed resident, but nowhere very common, being found singly or in pairs searching the trees for insects, in company with other small birds.

54. *UROLESTES MELANOLEUCUS.* (South-African Long-tailed Shrike.)

Not uncommon, though local, being usually found in flocks of four to eight. They are noisy birds, having a very harsh cry, and are fond of sitting in elevated positions, whence they pounce on their prey, which is often captured on the ground. I have found in their stomachs beetles, locusts, and the soldiers and workers of a very large termite.

55. *LANIUS COLLARIS.* (Fiskal Shrike.)

This well-known bird does not seem to be nearly so plentiful in this portion of Mashonaland as in other parts of South Africa.

56. *LANIUS COLLURIO.* (Red-backed Shrike.)

A fairly common migrant, arriving about October, breeding with us, and leaving again in April. It is a solitary species, sitting on low bushes in open country, especially in the vicinity of streams. It has been observed to feed on beetles and the large females of *Carebara* ants.

57. *SALPORNIS SALVADORII.* (Salvadori's Creeper.)

Distinctly scarce, and I have seen only single individuals at some intervals. It searches the bark of trees for insects, much like the European Tree-creepers, commencing at the foot and rapidly working its way up, then flying on to the next tree.

58. *CINNYRIS CHALYBEA*. (Lesser Double-collared Sun-bird.)

This is the commonest of our Sun-birds, and, like the others, it is most abundant towards the close of the dry season, when the yet leafless kafirbooms (*Erythrina*) are ablaze with their scarlet flowers, which seem to afford a special attraction to these birds. It is a familiar and fearless species, and capable of singing very sweetly. The nests, though often suspended, are more frequently supported by twigs.

59. *CINNYRIS OLIVACEA*. (Olive Sun-bird.)

This seems to be rather scarce, but may have been overlooked among the females of its gaudier relatives. Apart from a solitary female in my collection, I have observed only a pair, which were feeding on the flowers of a *Eucalyptus* in the town and allowed an approach within a few yards. My specimen measured 4 inches from the tip of the tail to the base of the beak, the latter being 10 lines in length.

60. *CINNYRIS GUTTURALIS*. (Scarlet-chested Sun-bird.)

This fine bird is not nearly so plentiful as *C. chalybea* and *C. kirki*, and seems to absent itself from about January to June, though perhaps it may be that the male loses his fine plumage during this period. The nest is generally supported by small twigs 10 or 15 feet from the ground, and is somewhat untidy in appearance, being almost identical with that of *C. chalybea*; it is domed and porched, and is composed of grass-fibres intermixed with down and a few dead leaves, the whole being bound together with spiders'-web, and the inside lined with fine grass and down. The eggs (19 × 14 mm.) are two in number, of a pale olive ground-colour, spotted, streaked, and pencilled with dark vandyke-brown and with large pale underlying splashes and blotches, some of the markings being collected in an irregular zone round the larger end, and occasionally a good deal suffused. I do not recollect hearing this species sing, but it utters a very loud chirp, often with almost monotonous iteration.

61. *CINNYRIS KIRKI*. (Eastern Amethyst Sun-bird.)

This little species is almost as plentiful as *C. chalybea*, and, like that species, the male seems to retain its plumage throughout the year. The nest, usually suspended from a twig, is made of much the same materials as those used by the preceding species, but it is much more neat and compact, with less spiders'-web. The eggs (17×12 mm.) are pale greenish grey, clouded streakily with very pale olive, which almost obscures the ground-colour.

62. *ZOSTEROPS ANDERSSONI*. (Andersson's White-eye.)

Common at all seasons, busily searching the trees for insects, either in pairs or in family parties of five or six.

63. *CHELIDON URBICA*. (House-Martin.)

Only observed by Mr. Ayres in October on the Rwerwe river. In connection with this name it may be mentioned that the Zulu "r" is pronounced like the German "ch."

64. *COTILE CINCTA*. (Collared Sand-Martin.)

This is the only Sand-Martin that I have succeeded in identifying. It is fairly common, occurring in small flocks in the neighbourhood of water. Like most of this family, it arrives about the second week in September, leaving again in the end of March or beginning of April.

65. *HIRUNDO RUSTICA*. (European Swallow.)

Fairly common. Although Andersson has recorded this species as breeding in Damaraland, I am not yet aware that it does so in this country.

66. *HIRUNDO DIMIDIATA*. (Pearly-breasted Swallow.)

Plentiful, this being the only Swallow that remains with us the whole year round.

67. *HIRUNDO GRISEOPYGA*. (Ashy-backed Swallow.)

Mr. Ayres met with this species on the Rwerwe river, but says it was not common.

68. *HIRUNDO CUCULLATA*. (Larger Stripe-breasted Swallow.)

This well-known species would appear to be somewhat

scarce, at all events in the Salisbury district, as I have observed it on but few occasions.

69. *HIRUNDO PUELLA*. (Lesser Stripe-breasted Swallow.)

Not uncommon, breeding among the granite kopjes near Salisbury.

70. *HIRUNDO SEMIRUFÆ*. (Red-breasted Swallow.)

Not very common, and generally seen in pairs. It is the only species which I have yet observed nesting on buildings in the town.

71. *MOTACILLA VIDUA*. (African Pied Wagtail.)

This resident species is common along the larger rivers, such as the Hanyani and Umfuli, but is very scarce round Salisbury. It seems to be more solitary in its habits than the other Wagtails.

72. *MOTACILLA CAPENSIS*. (Cape Wagtail.)

Everywhere abundant, occurring near water in flocks varying from three or four up to 20 individuals. I found both this and the preceding species nesting in tussocks of grass in the middle of the dry bed of the Umfuli, and there must have been a considerable destruction of young birds when the river came down with a 4-foot wall of water a week later. Although a resident, it appears to be considerably more numerous during the summer months.

73. *MOTACILLA CAMPESTRIS*. (Ray's Yellow Wagtail.)

This is a migratory species, but is somewhat erratic in its appearance. I have seen it as early as October, but this season it did not appear until the 26th January, perhaps owing to the drought in the early summer. It is more often to be seen in the town than the other species, feeding round the puddles in the streets, generally in pairs.

74. *ANTHUS PYRRHONOTUS*. (Cinnamon-backed Pipit.)

Everywhere abundant in the open veldt, but also to be found frequenting trees in open bush.

75. *MACRONYX CAPENSIS*. (Cape Long-claw.)

This handsome Pipit is generally distributed throughout the open country, but is nowhere plentiful, being found only

singly or in pairs. The tail is fully expanded in flight, as the bird rises with its loud mewling cry. In the stomach of one bird I found four grasshoppers, one reduviid bug, and a number of beetles.

76. *PETRONIA PETRONELLA*. (Yellow-breasted Sparrow.)

Abundant at all seasons in bush-country. They occur in small flocks, feeding principally on the ground, though they will occasionally search trees and low bushes for insects like Tits; they also eat seeds, buds, &c. The true Sparrows (*Passer*) do not appear to have been met with in Mashonaland up to the present.

77. *POLIOSPIZA GULARIS*. (Streaky-breasted Grosbeak.)

I obtained a single specimen at Salisbury in 1894, and do not recollect having seen the species since.

78. *SERINUS FLAVIVENTRIS*. (Yellow-bellied Canary.)

Common, congregating in considerable flocks during early winter. Like all its congeners, it has a sweet and well-sustained song.

79. *SERINUS ANGOLENSIS*. (Black-throated Canary.)

Not nearly so common as the preceding, which it resembles in general habits.

80. *SERINUS ICTERUS*. (Golden-rumped Canary.)

Occasionally met with in small flocks on the Umfuli river by Mr. Ayres.

81. *EMBERIZA ORIENTALIS*. (Shelley's Bunting.)

On one occasion in the winter of 1898 I came across a small flock of these birds near Salisbury, but had no gun with me; the only other example I met with was one I shot on the Hanyani river the following September. This was identified by Capt. Shelley, who tells me that the species had not previously been received from the south of the Zambesi.

82. *EMBERIZA FLAVIVENTRIS*. (Golden-breasted Bunting.)

Not uncommon in woodland country, occurring either singly or in small flocks of five or six individuals. It feeds entirely on the ground, and will often permit one to approach within a few feet of it before rising, when it flies for only a

short distance, dropping abruptly into the grass again. It is probably mainly graminivorous, but beetles and large green caterpillars have also been observed in the stomachs examined.

83. FRINGILLARIA TAHAPISI. (Rock-Bunting.)

Fairly common, resembling *E. flaviventris* in habits except that it takes more readily to trees when flushed; it is apparently more strictly graminivorous, the only insect found in four specimens being a single melolonthid beetle.

84. DILOPHUS CARUNCULATUS. (Wattled Starling.)

These wandering birds are very erratic in their appearance, arriving in small flocks, remaining about for a few weeks, and then going off again. I have noticed them chiefly in winter and early spring. Although locust-swarms have been more or less prevalent in Mashonaland for the last six years, I have never seen them being systematically attacked by these birds, and during the visits of the Starlings last year there were practically no locusts about at all. It is also worth noting that I have not even heard of the occurrence here of *Glareola melanoptera* Nordm., which is the species best known as the "Locust-bird."

85. PHOLIDAUGES VERREAUXI. (Verreaux's Glossy Starling.)

I first met with this lovely species on Umfuli river, but it was decidedly scarce there, an occasional pair only being met with; during September and October 1898, however, they visited Salisbury in some numbers to feast on the spring crop of wild figs, which attract a number of frugivorous and insectivorous birds. Their cries are somewhat harsh, but the male frequently utters a very sweet, plaintive whistle.

86. LAMPROCOLIUS SYCOBIUS. (Peters's Glossy Starling.)

Abundant at all seasons, often congregating in considerable flocks. They live almost entirely on fruits and berries, but may occasionally be seen feeding on the ground, apparently picking up insects.

87. BUPHAGA AFRICANA. (African Oxpecker.)

This well-known bird is fairly common in most parts of

Mashonaland, though I have seen but few round Salisbury. Mr. J. G. Millais has given an admirable account of the species in his magnificent book 'A Breath from the Veldt.'

88. *VIDUA PRINCIPALIS*. (Common Widow-bird.)

A fairly common resident, occurring in small flocks in open country near streams and swamps, and feeding on grass-seeds.

89. *PENTHETRIA ARDENS*. (Red-collared Widow-bird.)

This species is only to be found in large reedy swamps, where, however, it is fairly plentiful, though very wary. The male, when showing off, expands the feathers of his curiously-constructed tail vertically, so as to make it appear as deep as possible. He is very much like a small edition of the *Sakabula* (*Chera progne*), a bird, however, which does not appear to occur within the tropics. Stomachs contained seeds and small beetles.

90. *PYROMELANA ORYX*. (Scarlet Bishop-bird.)

Very local, but plentiful wherever large reed-beds are found. There are few prettier sights than the male in his courting flight, floating with feathers puffed up and quivering wings over the green reeds, a living ball of black and scarlet plush. Its stomachs contain seeds, small beetles, and an occasional spider.

91. *PYROMELANA XANTHOMELANA*. (Black-and-Yellow Bishop-bird.)

Much more generally distributed than *P. oryx*, and not so much attached to the reed-beds, but occurring anywhere along streams and rivers, though I have even found it perching on trees at a considerable distance from water. The nest is generally suspended from a twig over water, and roughly but strongly built of coarse grass, the seed-heads of which are ingeniously twisted into the interior of the nest, so as to form a deep soft lining. The eggs ($24\frac{1}{2} \times 16\frac{1}{2}$ mm.) are of a bluish-green colour, handsomely marked with surface-blotches of both dark and light brown, and underlying patches of violet-grey.

92. *ORTYGOSPIZA POLYZONA*. (Little Barred-breasted Finch.)

I have noticed this little bird only during the winter months, when it may be seen in considerable flocks in open spaces about the town. It is very tame, allowing approach within a few feet; but even then there is difficulty in detecting it on the ground, owing to its protective upperside colouring and diminutive size. It feeds on grass-seeds.

93. *LAGONOSTICTA JAMESONI*. (Jameson's Ruddy Waxbill.)

I first noticed these pretty little birds in November 1897, there being a few flocks along the river and among the granite kopjes close to Salisbury, but they disappeared shortly afterwards. In general habits they resembled the Common Waxbill.

94. *ESTRILDA ASTRILD*. (Common Waxbill.)

Occurs plentifully, sometimes in very large flocks, along rivers and on cultivated lands.

95. *ESTRILDA ANGOLENSIS*. (Blue-breasted Waxbill.)

Though common along the Umfuli, this Waxbill is scarce near Salisbury, usually occurring in pairs. I have not found its nest in Mashonaland, but in Natal it builds in mimosa-bushes, making a rough unlined nest of fine grass, with an entrance at the side. An interesting fact is that the nest is almost invariably placed in close proximity to, or even touching, one or more of the hanging nests of a powerful social wasp (*Belenogaster rufipennis*), as though the bird were aware that these would form an admirable protection against many enemies. The eggs are pure white, and measure 15×11 mm.

96. *ANAPLECTES RUBRICEPS*. (Red-headed Weaver.)

This handsome species is common about Salisbury, occurring in pairs in the bush, where it searches the trees and bushes assiduously for insects, often hanging back downward, like a Tit. It is very partial to the social spiders (*Stegodyphus*), and I once watched a bird pecking away at a spider's nest for over half an hour, during which time

it managed to unearth only four of the inmates, as the nest-material is very tough. The nests of this Weaver are retort-shaped, with a moderately long neck, and much more roughly constructed than those of *Hyphantornis*; they are suspended from the outermost twigs of trees in the bush, far away from water. The eggs are pale greenish blue, and measure 20×15 mm.

97. *HYPHANTORNIS NIGRICEPS*. (Black-headed Weaver.)

I have seen this bird only on the Umfuli river, where it was fairly common in small flocks, searching the trees for insects.

98. *HYPHANTORNIS VELATUS*. (Black-fronted Weaver.)

Fairly common round Salisbury, nesting among the granite kopjes at some distance from water.

99. *HYPHANTORNIS XANTHOPS*. (Golden-faced Weaver.)

This fine species is by no means common; I have seen it on the Hanyani and Umfuli rivers, and it occurs sparingly along the streams near Salisbury.

100. *TEPHROCORYS CINEREA*. (Rufous-capped Lark.)

Everywhere abundant in open country. It is a fearless little bird, frequenting the open spaces in the town, and readily permitting a very close approach. During the courting-season the male has a very pretty way of rising; after first flying up he will swoop downward a short distance, then rise abruptly straight upward for several feet with closed wings, turning gently over and swooping down and up again several times in succession, then fluttering away skyward, singing sweetly all the while. In the end of winter these birds congregate in flocks, which sometimes contain as many as 200 or 300 individuals.

101. *MIRAFRA FISCHERI*. (Fischer's Bar-tailed Lark.)

A few of these birds were met with by Mr. Ayres along the Umfuli. Although I have never shot it, I am pretty certain I have recognized it as a fairly common species round Salisbury, its curious cracking flight being very characteristic.

102. *MIRAFRA AFRICANA*. (Rufous-naped Lark.)

Generally distributed, though nowhere plentiful, often frequenting the vicinity of houses in the town. It is a solitary bird, fond of settling on the top of some low bush, where it will remain for a long time, uttering its three-note call with a perseverance worthy of a better cause. When disturbed it goes off with a low fluttering flight, either alighting on the next convenient bush or dropping to the ground, when it runs like a rat. One bird will sometimes frequent the same post for many weeks.

103. *UPUPA AFRICANA*. (African Hoopoe.)

This bird is not uncommon in the bush round Salisbury. It is generally solitary in its habits, but during the early spring it congregates into small flocks of five or six. It feeds chiefly on the ground, but also searches tree-trunks for insects; the stomachs examined contained grasshoppers and beetles.

104. *IRRISOR VIRIDIS*. (Red-billed Wood-hoopoe.)

Though very scarce in the neighbourhood of the town, these handsome birds are fairly plentiful in the larger bush near the Hanyani and Umfuli rivers, occurring in flocks of six to twelve, and ever industriously searching the tree-trunks for insects, &c., in the crevices of the bark. I first made the acquaintance of these Wood-hoopoes in the dense and desolate bush-country along the Brak river in the Northern Transvaal, when I had managed to lose myself in the bush—a by no means difficult performance in those parts—and owing to its being a very cloudy day I could not obtain any bearings. Thinking that I might have been walking in a circle, and might still be somewhere near our outspan, I endeavoured to shout, as I had no gun wherewith to signal; but every time I attempted to raise my voice a troop of these wretched birds would promptly join in and drown it. The exasperating effect of this on a man who has just realized that he has hopelessly lost his bearings in an almost waterless country may be more easily imagined than described, and I have never quite forgiven the “Kackela” for that *mauvais quart d’heure*.

105. RHINOPOMASTES CYANOMELAS. (Scimitar-billed Woodhoopoe.)

Very much scarcer than the preceding, and differing from it in that it occurs only in pairs, and also it not infrequently descends to the ground in pursuit of its prey, whereas I have never seen *Irrisor viridis* on the ground. The present species has also a much more graceful floating flight. The stomachs contain diptera, reduviid bugs, and occasionally cteniform spiders, and wasps.

106. CYPSELUS APUS. (Common Swift.)

Mr. Ayres notes this species from the Umfuli in September and October, which seems to be the usual time of their arrival. Last season, however, I saw a few apparently passing over in October, but observed no more till the end of January, when a large flock arrived, remained for a few days, and then disappeared.

107. CYPSELUS CAFFER. (African White-rumped Swift.)

Seen in Mashonaland in September and October by Mr. Ayres.

108. CAPRIMULGUS RUFIGENA. (Rufous-cheeked Nightjar.)

A common species; the stomach of one specimen contained 14 examples of a coprophilous beetle—*Onthophagus gazella* F.

109. CAPRIMULGUS FOSSII. (Foss's Nightjar.)

Almost as common as the preceding, but more often found among rocks and about the large termite-heaps. An immature Nightjar in my collection may perhaps be referable to *C. pectoralis* Cuv.

110. COSMETORNIS VEXILLARIUS. (Standard-winged Nightjar.)

This singular bird is fairly common in most parts of the country, being especially partial to rocky wooded kopjes. The male assumes his long wing-feathers as early as August, generally losing them about December. The eggs, two in number, are laid on the bare ground, and are pinkish white, with rusty brown spots and blotches, which are thicker at

the larger end. The food consists chiefly of crepuscular beetles.

111. *CORACIAS GARRULUS*. (European Roller.)

Mashonaland is well supplied with Rollers, or "Blue Jays" as they are locally called, all the South-African species being found within our limits. The present is our only migrant, arriving from the north about September and leaving early in April. It has been fairly plentiful round Salisbury this season, and probably breeds here, as young birds have been observed in January and February. It is fond of sitting on the summit of isolated trees in fairly open country, especially along streams, and is noticeably tamer and less active than *C. caudatus*, permitting approach within gunshot with comparative ease. Stomachs contained only beetles.

112. *CORACIAS CAUDATUS*. (Lilac-breasted Roller.)

This lovely bird is perhaps the commonest and most generally distributed species of the genus in this part of South Africa; it is, moreover, much the most wary, being very difficult of approach, sitting on the topmost twigs of the highest trees in the vicinity of rivers and making off with discordant screams at the first sign of danger. During the breeding-season it (presumably the male bird) will mount to a considerable height with its curious rolling flight, rising in stages and screaming all the while, then suddenly turning over and diving straight down.

I took a nest of this species at the Umfuli on the 24th October, 1895. It was in a hole in a tree, about 20 feet from the ground, and contained three white eggs, moderately incubated; two of these were nearly spherical, the third being very pointed at one end—much like a Plover's egg in shape. The stomachs of this bird usually contain small crabs, locusts, mantides, and beetles (including *Anthia pachyoma*). The occurrence of the last-named insect is of much interest, as it is capable of ejecting a considerable quantity of a powerful acid.

113. *CORACIAS SPATULATUS*. (Raequet-tailed Roller.)

This species appears to be very local, occurring only

among the heavier timber which grows in the vicinity of the larger rivers. At Gadzima, on the Umfuli, I found it fairly common, and observed it again on the Hanyani, some 12 miles south of Salisbury; it also occurs sparingly about Mazoë. In some ways its habits are notably different from those of its congeners. It is never found sitting on the summits of trees at the outskirts of the bush, but only on the lower branches further within; it is comparatively tamer; and its courting gambols are also distinct, for it will fly with a very rapid zigzag for some distance, and then suddenly shoot straight up into the air for 15 or 20 feet with closed wings, curving gently over and down again head foremost, screaming all the while. *C. spatulatus* is quite as quarrelsome as *C. caudatus*, and even more noisy; I can only compare its cries to the yelping of a litter of puppies. Stomachs contained grasshoppers, with beetles and large fly-maggots, evidently taken from carrion.

114. *CORACIAS OLIVACEICEPS*. (Olive-headed Roller.)

This clumsy and comparatively dull-coloured bird is generally distributed, but never plentiful, being even more solitary in its habits than the other species. Like the first two, it is fond of sitting on elevated situations and pouncing thence on its prey in a Shrike-like manner. It is rather more lethargic than the others, but its courting flight is practically the same as that of *C. caudatus*. The stomachs contained beetles, scorpions, and several kinds of locusts, including a gaudily-coloured species which emits a very strong and unpleasant odour.

115. *EURYSTOMUS AFER*. (Yellow-billed Roller.)

Much the scarcest of our Rollers, and I have only seen a few specimens along the Umfuli, where I observed a pair breeding in a hole in a tree close to my camp. It is wilder even than *Coracias caudatus*, which it much resembles in its general habits.

116. *DICROCERCUS HIRUNDINACEUS*. (Swallow-tailed Bee-eater.)

Not very common, and, unlike the other Bee-eaters, it does

not appear to frequent the river-banks, but occurs in small parties of three or four, settling on low trees and bushes in the open forest, far from water. I have never seen it flying high in the air, like the larger species. Stomachs contained grasshoppers and hymenoptera.

117. *MELITTOPHAGUS MERIDIONALIS*. (Little Bee-eater.)

A common resident species, always found in proximity to water, generally in pairs, but occasionally in small flocks. Its flight is low and rarely sustained for any great distance, it being a fearless little bird. Stomachs contained small wasps and beetles.

118. *MEROPS APIASTER*. (European Bee-eater.)

This is our only migratory Bee-eater, arriving from the north generally about November and breeding in colonies in the sandy banks of the larger rivers. It is usually seen in fairly large flocks, which occur on the outskirts of the bush, especially near water, and often soars to a considerable height. Stomachs contained hymenoptera, winged termites, and locusts.

119. *MEROPS NATALENSIS*. (Carmine-throated Bee-eater.)

This lovely bird is very scarce near Salisbury, but is fairly plentiful in the lower veldt all round. In its habits it is very similar to the preceding species, but is an even more persistent high-flier. I have often found that lighting a grass-fire is an effectual way to draw them down to earth again, for they will come to hawk for insects in the smoke, like the Drongos. In November 1897 I saw a large colony nesting in holes in the sandy bank of the Odzi river in Manika. They are especially partial to the migratory locust, and I was much surprised to find in the stomach of one of them an example of a blister-beetle.

120. *MEROPS ALBIFRONS*. (White-fronted Bee-eater.)

Obtained by Mr. Ayres on the Lower Hanyani river.

121. *CERYLE RUDIS*. (Pied Kingfisher.)

Fairly common, occurring in pairs along all the rivers.

122. *CERYLE MAXIMA*. (Great African Kingfisher.)

This giant species is everywhere rather scarce and always very shy. I observed a pair nesting in a hole in the bank of the Umfuli in September 1895.

123. *ALCEDO SEMITORQUATA*. (Half-collared Kingfisher.)

Common along the Umfuli, though I have not observed it elsewhere.

124. *CORYTHORNIS CYANOSTIGMA*. (Malachite-crested Kingfisher.)

This exquisite little bird is common on every stream throughout the year.

125. *HALCYON PALLIDIVENTRIS*. (Grey-headed Kingfisher.)

This fine Bush-kingfisher is very scarce, and it appears to be migratory, as I have seen it only during the wet season. The stomach of one example contained a lizard, two slow-worms, grasshoppers, and beetles.

126. *HALCYON CHELICUTENSIS*. (Striped Kingfisher.)

A very common resident, but only to be met with in the bush, away from water, where it selects some elevated perch whence it darts upon the insects on which it preys. In the breeding-season the male has a short but very pleasing song, though its ordinary cry is a harsh chatter. Its principal food consists of orthoptera, but I have likewise observed it to feed on butterflies (*Junonia cebrene* and *Catopsilia florella*) and beetles.

127. *BUCORAX CAFFER*. (South-African Ground-Hornbill.)

The "Brown Vogel" is far from common in Mashonaland, being more often heard than seen; it is, moreover, very much more shy than I found it to be in Natal. I am not aware that the Mashonas attribute to it any rain-making qualities, as do the Zulus.

128. *LOPHOCEROS EPIRHINUS*. (Southern Grey Hornbill.)

A common species, but subject to partial migrations, which depend on its food-supply. It occurs in small flocks in the bush, keeping well hidden in the foliage and being somewhat difficult to get near. Its shrill mewing cry

strikes one as being very incongruous in so large a bird ; it has a very characteristic, jerky, dipping flight. Stomachs examined contained locusts, mantides, coleoptera, and fibrous vegetable matter, but I have also seen this Hornbill feeding on fruits and seeds. It will occasionally descend to feed on the ground.

129. *LOPHOCEROS LEUCOMELAS*. (Yellow-billed Hornbill.)

Much scarcer than the preceding species in the vicinity of Salisbury, but very plentiful in the heavier bush, where its loud yelping cries are continually to be heard. It occurs in small flocks, and is not nearly so shy as *L. epirhinus*, while, unlike that bird, it perches on the topmost branches of high trees, where it bobs its head up and down, uttering its loud "toe, toe, tocke, tocke, toe." Its bill is a very powerful instrument, and I have often wondered at the ease with which it can open the huge pods of a large leguminous tree which I have found hard enough to split with a hammer. Its stomach contained locusts, termites, and ants.

There is another larger and casqued Hornbill, of which I have seen a few flocks on the Umfuli and near Salisbury ; I suspect this is the Trumpeter Hornbill (*Bycanistes bucinator* Temm.), but unfortunately I have never succeeded in getting within range, as the birds are very wild.

130. *CAMPOTHERA SMITHI*. (Smith's Woodpecker.)

I have not succeeded in identifying this species, though Mr. Ayres remarks that it was not very scarce along the Umfuli.

131. *CAMPOTHERA BENNETTI*. (Bennett's Woodpecker.)

Not uncommon throughout the year. Stomachs contained coleoptera (*Oosomus*, *Cassida*, &c.) and black ants.

132. *DENDROPICUS CARDINALIS*. (Cardinal Woodpecker.)

This little species is much the commonest of our Woodpeckers.

133. *THIRIPIAS NAMAQUUS*. (Bearded Woodpecker.)

Only a few examples of this species have come under my notice, but it has not improbably been overlooked.

134. *INDICATOR MINOR.* (Little Honey-Guide.)

Common, though rather local. Along the Suro-suro river, in July 1894, these birds were so plentiful as to be a regular nuisance with their incessant chattering invitations; and yet our Kafirs insisted that it was no use following them, as there were no bees there and the birds would lead us away for miles. I recollect having seen this species only twice close to Salisbury, and both times it led us to honey.

135. *MELANOBUCCO TORQUATUS.* (Black-collared Barbet.)

Fairly common, occurring singly or in pairs in bush-country. It may occasionally be seen sitting on the top-most branch of some dead tree, bobbing its head up and down as it gives vent to its singularly loud cry of "ko korro, ko korro," oft repeated. It appears to be entirely frugivorous in its diet, and its flight is headlong and swift.

136. *TRACHYPHONUS CAFER.* (Levaillant's Barbet.)

I obtained a single specimen of this curious bird among the giant ant-heaps on the Hanyani river in September 1898. It was feeding on the ground and flew up into a low bush; the stomach contained only termites. Mr. Swynnerton saw another the following day.

137. *COCCYSTES GLANDARIUS.* (Great Spotted Cuckoo.)

All our Cuckoos are migratory, occurring only during the wet season, and generally putting in an appearance from the middle of September to the beginning of October. None of them seem to be plentiful, the present species being perhaps the commonest. It is seen singly or in pairs, and has a harsh chattering cry. Its food consists of locusts, beetles, and hairy caterpillars; it removes some of the violently urticating hairs of the last by running them through its bill from side to side before swallowing them.

138. *COCCYSTES JACOBINUS.* (Black-and-White Cuckoo.)

I have obtained only a single female of this elsewhere common species, in February 1899, when, although the bird was by no means in full plumage, the eggs in the ovaries were well developed. The stomach contained hairy caterpillars.

139. *COCCYSTES CAFER*. (Levaillant's Cuckoo.)

Only one example has come under my notice, and this I shot close to Salisbury, in December 1898. The stomach contained hairy caterpillars.

140. *CUCULUS GULARIS*. (South-African Cuckoo.)

Although Mr. Ayres records this species as plentiful on the Umfuli, I did not observe it there in the spring of 1895, and an immature bird shot near Salisbury in November last is the only one I have seen. This example differs from the adult in having the nostrils black, all the feathers of the head and back broadly barred at their tips with greyish or buffish white, and the sides of the face and the entire throat barred like the abdomen, except that the bars are decidedly closer; it also has a large nape-spot composed of pure white feathers, which may perhaps be merely a "sport." The colours of the soft parts are:—upper mandible, including nostrils, blackish; lower mandible blackish at tip, the base and also the palate salmon-red; iris brown; feet pale yellow. The stomach contained caterpillars and beetles.

141. *CUCULUS CANORUS*. (European Cuckoo.)

A single specimen was obtained in January last by Mr. Swynnerton.

142. *CHRYSOCOCCYX CUPREUS*. (Golden Cuckoo.)

This beautiful little Cuckoo is not very common, being found both in the bush and perching on low shrubs in open swamp-land, its very distinctive call soon betraying its presence. It certainly breeds with us, as I have observed young birds in January.

143. *CHRYSOCOCCYX SMARAGDINUS*. (Emerald Cuckoo.)

Mr. George Taylor informed me that this species was fairly common in the forests of Makombi's country, some 100 miles N.E. of Salisbury, where he was Native Commissioner for some time.

144. *CENTROPUS BURCHELLI*. (Burchell's Lark-heeled Cuckoo.)

A fairly common bird among reedy thickets along the

banks of streams. It spends most of its time on the ground, but when flushed settles in the lower branches of trees and ascends with a creeping motion suggestive of a Coly. Its flight is very weak, and when frightened it will skulk among the dense undergrowth, refusing to be put up. It utters a loud squawking note at intervals, and the Kafirs say that when it calls frequently it is a sign of rain. Mr. J. folliott Darling has kindly furnished me with the following account of the nidification as observed by him at Mazoë :—

“ In January I found a nest of *Centropus burchelli* in a low thorn-bush about 6 ft. from the ground; it was composed of dry grass, rather roughly constructed, domed, and with a large hole at the side pointing away from the prevailing winds. In it were four young birds a few days old, very extraordinary-looking little creatures, with large heads and enormously distended abdomens; in the one I skinned I counted 17 grasshoppers, besides the débris of various other insects. About a month later I found another nest in a similar position and similarly constructed; in it were two birds just hatched and two eggs, the latter being round and white and a little larger than those of *C. nigrorufus*.”

145. CENTROPUS NIGRORUFUS. (Black-breasted Lark-heeled Cuckoo.)

Not uncommon in the open reedy swamps round Mazoë and about the Gwibi flats. Except for its preferring open country, its habits much resemble those of the preceding species. Of its nest Mr. Darling writes:—“ On 13th January I took a nest of *C. nigrorufus* in long and thick grass in a vlei; the bird flew out beside me or I should not have found it, so artfully was it concealed, being woven out of the living grass, so that it kept green all the time, and when I stood only a couple of yards away it was impossible to discern the nest. This was situated about 2 ft. from the ground, domed, and with a small aperture at the side, the grass being very finely and carefully woven in small plaits or wisps and not in single blades, and the tops protruding freely for some distance above the nest. The eggs were four in number, pure white,

and almost spherical, just like very large Kingfishers'." The stomach of the only bird examined contained coleoptera. The Lark-heels, unlike the true Cuckoos, are resident.

146. *TURACUS SCHALOWI*. (Schalow's Touracou.)

Mr. Darling tells me he obtained examples of a white-crested Touracou on the lower Hanyani river in 1895, which is probably referable to this species or *T. livingstonii*.

147. *GALLIREX PORPHYREOLOPHUS*. (Purple - crested Touracou.)

This lovely bird is very scarce in the portions of Mashonaland with which I am acquainted, probably owing to the insufficiency of cover in the open forests. The few individuals I have seen have been in the dense growth that fringes the upper Mazoë and Umvinji rivers; the species will doubtless be more plentiful in the low veldt.

148. *SCHIZORHIS CONCOLOR*. (Grey False Touracou.)

The "Go-way Bird," as it is popularly called, is common and universally distributed. Its loud cry is remarkably human-like, and its continued querulous injunctions to "go away" appear almost insulting. With regard to the elevation of the crest in this species when alarmed, Dr. Exton's full account, as cited in Messrs. Sharpe and Layard's work, is admirable and quite agrees with my own experience. This bird is generally to be found in small flocks, and feeds on berries, seeds, and young shoots.

149. *PŒOCEPHALUS MEYERI*. (Meyer's Parrot.)

This little Parrot is common throughout the country, and is found either in pairs or in small flocks of five or six. Its flight is rapid and headlong, and it utters a shrill scream when alarmed.

150. *PŒOCEPHALUS FUSCICOLLIS*. (Brown-necked Parrot.)

A very much scarcer bird than *P. meyeri*, and not nearly so tame. I have observed it on only three or four occasions.

151. *GYPS KOLBII*. (South-African Griffon.)

Abundant. It has been stated that during the recent outbreak of rinderpest the Vultures would not touch the

cattle which had died of that disease. This, however, is quite erroneous, and the idea was probably originated by the fact that the carcasses throughout the country were enormously disproportionate to the number of Vultures.

152. *GYPS RUEPELLI*. (Rüppell's Griffon.)

Observed by Mr. Ayres.

153. *OTOGYPS AURICULARIS*. (Eared Vulture.)

Although common, this species is not nearly so plentiful as the Griffon.

154. *LOPHOGYPS OCCIPITALIS*. (White-headed Vulture.)

Recorded by Mr. Ayres.

155. *NEOPHRON PERCNOPTERUS*. (Egyptian Vulture.)

I have seen this species only once in Mashonaland, and it has been observed once by Mr. Swynnerton.

156. *NEOPHRON PILEATUS*. (Hooded Vulture.)

This Vulture is fairly common and may be at once recognized by its smaller size and pink head. It seems to be rather afraid of its two larger relatives, and does not usually visit a carcass at the same time with them, but contents itself with the pickings after they have left.

157. *SERPENTARIUS SECRETARIUS*. (Secretary-bird.)

This well-known bird is generally distributed, though nowhere common, being usually met with in open grassy country. They make enormous nests of sticks; all that I have seen were in low mimosa-trees.

158. *CIRCUS CINERACEUS*. (Montagu's Harrier.)

Not uncommon, frequenting open country, especially about swamps and streams where termite-heaps occur, for the holes in these afford shelter to many mice. Its flight is low, and it appears to search its ground very thoroughly. Almost any day in our summer a pair may be seen skimming gracefully round the outskirts of the town.

159. *CIRCUS MACRURUS*. (Pallid Harrier.)

About equally common as the preceding, which it closely

resembles in habits. The stomach of a specimen in my collection contained four large green locusts. Both these Harriers are migratory, occurring only during our wet season

160. *MELIERAX POLYZONUS*. (Many-banded Goshawk.)

Mr. Swynnerton obtained a single example of this Hawk in January last. The stomach contained a lizard and some beetles.

161. *ASTUR POLYZONOIDES*. (Little Barred Goshawk.)

This little Hawk is one of our commonest birds of prey, and also is one of the few which reside here all the year round. It is by no means shy, sitting fairly close within the foliage of the trees; when disturbed it descends with a low swooping flight, dodging in the bush, but for no great distance, and rising abruptly to its perch. The nest is a neat structure of sticks placed in the fork of a tree, about 15 or 20 feet from the ground; the eggs, which are three or four in number, are dull white, with highly variable blotches of vandyke-brown and underlying markings of lilac-grey, and measure 38 × 30 mm. Stomachs contained lizards, snakes, locusts, and winged termites. The young bird differs in having the underparts marked with longitudinal blotches of light reddish brown.

162. *ACCIPITER OVAMPENSIS*. (Ovampo Sparrow-Hawk.)

I have obtained only a single specimen in Mashonaland, which is probably referable to this species*. It was one of a pair which frequented a kloof close to Mr. Darling's camp at Mazoë in December 1898. It was a young female with undeveloped ovaries, and appeared to differ from what I could remember of Natal examples in the colour of the breast, which was rufous, with very narrow black shaft-stripes, and also in its buff under tail-coverts. The stomach contained remains of a small bird, apparently a Weaver.

163. *BUTEO JAKAL*. (Jackal Buzzard.)

This is the only Buzzard with which I am acquainted here,

* [This is probably the specimen recently sent to the British Museum by Mr. Marshall.—EDD.]

and it appears to be far from common. Two examples have been shot recently by Mr. Swynnerton; their stomachs contained snakes, beetles, and winged termites.

164. *AQUILA WAHLBERGI*. (Wahlberg's Eagle.)

This Eagle is not common, and, like most of its kind, is more easily seen than procured. Mr. C. Timmler recently shot a fine female, as she left her nest. This latter was a large structure of sticks in the strong fork of a large tree, about 20 feet from the ground, and was lined with roots, grass, and a few green leaves. The single egg was dirty white, with large pale blotches and freckles of yellowish brown, and faint underlying blotches of brownish grey; it measured 60 × 48 mm. The bird's stomach contained lizards and a locust.

165. *ASTURINULA MONOGRAMMICA*. (African Buzzard-Eagle.)

Fairly common and more readily approachable than any of our larger Hawks. It prefers to keep well within the bush, and is somewhat lethargic in its habits, the flight being comparatively heavy. The following are the contents of a single bird:—2 scorpions, 2 large centipedes, 4 larvæ of a large cetomid beetle, and 4 locusts; in addition the crop was crammed with 130 winged specimens of our largest termite. This species seems specially partial to scorpions and centipedes, either one or the other having been observed in almost every specimen; one also containing a small viperine snake.

166. *CIRCAËTUS PECTORALIS*. (Black-breasted Harrier-Eagle.)

This fine Eagle is relatively common round Salisbury, and two or three individuals may generally be observed within a few miles of the town during the summer. It is a comparatively fearless bird, though generally managing to keep just out of gunshot. It frequents open country, especially in the vicinity of water, and searches its ground very thoroughly from a considerable altitude; but settles very frequently, even on low trees, and will often haunt one particular spot for some little time. It is interesting to see

this large bird hovering just like a Kestrel far up in the air ; it resembles a Kestrel also in the way it descends on its prey, which is generally taken on the ground—the downward flight being comparatively gentle, and not headlong, like the magnificent swoop of the Bateleur. Messrs. Sharpe and Layard describe the cere as olive-yellow, whereas, in the specimens I have seen, that part, as well as the legs, have been bluish white. An immature bird in my collection also differs much from their description. In this there is a broad brown breast-band (distinctly lighter than in the adult), the rest of the underparts being pure white, with large dark brown blotches throughout. In an old bird the breast-band becomes narrower and almost black. Stomachs contained mice, snakes, lizards, and beetles.

167. *HELOTARSUS ECAUDATUS*. (Bateleur Eagle.)

A fairly common species throughout Mashonaland, but very shy, and I have not yet succeeded in bringing one to bag. It has a beautiful and a powerful flight, sailing majestically along with scarcely a flap of the wing, and remaining in the air for hours at a time. Its downward swoop must be made with enormous force ; and I well remember my astonishment when a female, hotly pursued by a male, swept down on me from behind, passing within a few yards, and before I had realized what was the cause of the terrific rush, they were far away in mid-air again. When camped on the Umfuli I obtained a young bird from some Kafirs ; it became very tame, coming up to me and putting its head down to be scratched. I never confined it in any way beyond clipping its wings, and one day it wandered away on its own account. I fed it on buckwheat and the bodies of any birds I skinned, but when meat was scarce it would catch locusts for itself.

168. *HELOTARSUS LEUCONOTUS*. (White-backed Bateleur Eagle.)

On three occasions I have observed examples of this form near Salisbury, but it would seem very doubtful whether it is entitled to specific rank.

169. *HALIAETUS VOCIFER.* (African Sea-Eagle.)

This fine Eagle is by no means common, and generally haunts the larger rivers in which big pools are to be found. I have seen it on the Lundi, Nuanetsi, and Umfuli, and on a few occasions near Salisbury.

170. *MILVUS ÆGYPTIUS.* (Yellow-billed Kite.)

A common migrant, coming down from the north about September and leaving again in March. Although generally distributed, I do not remember to have seen more than half a dozen together at one time, and it is more generally observed in pairs. Like all its congeners, it is a bold and fearless bird, and on any day several may be seen gracefully patrolling the town in search of anything edible from a chicken to a locust.

171. *ELANUS CÆRULEUS.* (Swallow-tailed Kite.)

Seen by Mr. Ayres, but not procured.

172. *BAZA VERREAUXI.* (Verreaux's Cuckoo-Falcon.)

A single example of this rare species was shot by Mr. Swynnerton. Its stomach contained grasshoppers, beetles, and a large green caterpillar.

173. *FALCO BIARMICUS.* (South-African Lanner.)

Observed by Mr. Ayres.

174. *FALCO SUBBUTEO.* (Hobby.)

Though I have observed but few myself, the Hobby would appear to be fairly common round Salisbury, for Mr. Swynnerton has recently shot five specimens, nearly all of which were obtained while they were hawking for crepuscular insects when it was almost dark. The stomachs contained beetles, locusts, and a butterfly.

175. *TINNUNCULUS RUPICOLoidES.* (Large African Kestrel.)

A common and generally distributed species; it is by no means timid, seeking its prey in and around the town and being especially fond of sitting on the telegraph poles and wires. In 1897 a pair nested on a ledge at the Cecil Hotel, but failed to bring off any young, as they were too much tormented by the Crows. The following contents have been found in

the stomachs of this species :—a shrew, lizards, slow-worms, scorpions, centipedes, grasshoppers, mantides, and the large-winged *Carebara* ants.

176. *TINNUNCULUS NAUMANNI*. (Lesser Kestrel.)

This little Kestrel is fairly common during the rainy season, usually occurring in flocks which sometimes attain considerable proportions. When they hover they flutter their wings a good deal more than does *T. rupicoloides*, and it is a pretty sight to see 20 or 30 of them working systematically over an open piece of ground. Stomachs contained grasshoppers, centipedes, and beetles, and one bird was crammed with hunting spiders.

177. *TINNUNCULUS AMURENSIS*. (Eastern Red-footed Kestrel.)

A single specimen of this pretty Hawk was shot by Mr. Swynnerton while it was feeding at dusk along the river. Its stomach contained 18 large pentatomid bugs, 6 water-beetles, 1 grasshopper, 2 winged *Carebara* ants, and winged termites.

178. *BUBO MACULOSUS*. (Spotted Eagle-Owl.)

The commonest Owl in the country, being found singly or in pairs sheltering in the more densely-foliaged trees; I do not remember to have ever noticed it roosting on the ground, as it does in the uplands of Natal. The small birds are very fond of mobbing it, being usually led in these attacks by the Bulbuls or Drongos. Its stomachs contained mice, a harmless snake, locusts, and a longicorn beetle.

179. *BUBO LACTEUS*. (Verreaux's Eagle-Owl.)

I observed several specimens of this splendid Owl along the Umfuli, but round Salisbury it would appear to be very scarce. I have heard several accounts of its depredations on the hen-roosts, and it is said to return night after night until it finishes the fowls. On the Umfuli the Kafirs told me it fed principally on Guinea-fowls.

180. *GLAUCIDIUM PERLATUM*. (Pearl-spotted Owlet.)

Only some half-dozen specimens of this little species have come under my notice, but it probably escapes detection owing to its small size and inconspicuous colouring. It

appears to be at least partially diurnal in its habits, moving about in the daytime much more freely than the other Owls. The stomach of an immature bird contained a lizard and a locust.

181. *GLAUCIDIUM CAPENSE*. (Barred Owlet.)

I do not remember to have seen this species on the Umfuli, though Mr. Ayres found it not uncommon there.

182. *ASIO CAPENSIS*. (African Short-eared Owl.)

Seen by Mr. Ayres, but not procured.

183. *STRIX FLAMMEA*. (Barn-Owl.)

Not very common round Salisbury, though I have come across it pretty frequently in disused mining shafts and drives in the out-districts.

184. *VINAGO DELALANDII*. (Delalande's Green Pigeon.)

This handsome bird is common and generally distributed, though subject to partial migrations depending on the ripening of the various fruits on which it feeds. It is especially fond of the wild fig, the dense foliage of which affords it excellent protection, rendering it very hard to detect as it sits very close, but it dashes out with considerable speed when roused. Its flesh is excellent.

185. *TURTUR SEMITORQUATUS*. (Red-eyed Turtle-Dove.)

A somewhat scarce and solitary species, the presence of which I had overlooked till quite recently.

186. *TURTUR CAPICOLA*. (Cape Turtle-Dove.)

Common everywhere, occurring generally in pairs, but often in small flocks. Although avoiding the town, these Doves are a feature of every homestead and become almost as tame as domesticated Pigeons. They seem to breed pretty well all the year round, as I have found their eggs in nearly every month.

187. *TURTUR SENEGALENSIS*. (Senegal Turtle-Dove.)

On a few occasions I heard the unmistakable call of this species about Mazoë, though I never actually saw one; it does not appear to occur at all round Salisbury.

188. *CENA CAPENSIS*. (Namaqua Dove.)

This beautiful little Dove is comparatively scarce in Mashonaland, and I rather doubt whether it is resident.

189. *FRANCOLINUS COQUI*. (Coqui Francolin.)

Common everywhere, but preferring the mosasa-bush, wherein the grass grows fairly short. It sits wonderfully close, and, when feeding towards sundown, will permit one to approach within a few yards without evincing much alarm. In addition to seeds, the stomachs contained beetles, coccidæ, and ants.

190. *FRANCOLINUS SHELLEYI*. (Shelley's Francolin.)

Almost as common as the Coqui, but frequenting rather different stations, being more partial to broken hillsides covered with long grass.

191. *PTERNISTES NUDICOLLIS*. (Red-necked Francolin.)

The so-called "Pheasant" is common, but found only among the dense undergrowth along the banks of streams and rivers, from which it is often difficult to dislodge it. It has a singularly loud and harsh cackling call, uttered in the early morning and evening.

192. *PTERNISTES SWAINSONI*. (Swainson's Francolin.)

I have seen this species only in the extreme south of our limits. It was very plentiful on the Limpopo, and occurred also on the Nuanetsi and Lundi, but I saw no more after ascending the plateau at Narka Pass, near Victoria.

193. *COTURNIX CAPENSIS*. (Cape Quail.)

Very abundant in some seasons, though its movements are most erratic. This year there have been very few examples about.

194. *NUMIDA CORONATA*. (Crowned Guinea-fowl.)

This wide-ranging bird is very abundant, and occurs in every description of country, though it is most numerous along the larger rivers, where troops of several hundreds may be met with. In the crop of a bird shot by Mr. Swynnerton I found many beetles, which had been swallowed whole without any damage.

195. *TURNIX LEPURANA.* (Kurrichaine Hemipode.)

Only a few solitary examples of this pretty little bird have been met with in open swampy ground.

196. *CRECOPSIS EGREGIA.* (Greater African Crake.)

This species was first brought to my notice by Mr. Swynnerton, who shot one on the Makabusi river, quite close to Salisbury. Since then I have seen two more examples, and they are probably not uncommon, as on one wet day I heard them calling in some numbers in a dense and impenetrable reed-bed lower down the Makabusi. The stomach of Mr. Swynnerton's specimen contained ants and some vegetable matter.

197. *LIMNOCORAX NIGER.* (Black Crake.)

Not uncommon along reedy pools &c., but difficult to procure, owing to their lurking habits, though their presence may often be detected by their sharp call of "check, check," repeated at short intervals. Their green bills and bright red legs form a pleasing contrast to their black plumage, and they look very pretty running about with ease on the water-lilies in search of their food.

198. *BUGERANUS CARUNCULATUS.* (Wattled Crane.)199. *TETRAPTERYX PARADISEA.* (Stanley Crane.)200. *BALEARICA REGULORUM.* (Southern Crowned Crane.)

All the three South-African Cranes occur in Mashonaland, the Wattled Crane being the least common, and I have only occasionally seen it singly or in pairs. The other two species are sometimes to be seen in flocks of 20 or 30 individuals.

201. *LOPHOTIS RUFICRISTA.* (Red-crested Bustard.)

I have never seen this handsome Bustard, though Mr. Ayres appears to have met with it in several parts of the country.

202. *LISSOTIS MELANOGASTER.* (Black-bellied Bustard.)

This is the ordinary "Koorhaan" of this country, though it is nowhere common, being generally a solitary bird and frequenting open grassy vleis.

203. *EUPODOTIS KORI*. (Kori Bustard.)

The "Gom-Paauw" seems to occur sparingly in most parts of the country, though personally I have seen but few of them.

204. *ÆDIGNEMUS CAPENSIS*. (South-African Thick-knee.)

The "Dikkop" is decidedly scarce in Mashonaland, frequenting rough open country in small flocks. It is usually easy to approach, as it relies much on its admirably protective colouring, but soon becomes wild on being shot at. It is at least partially nocturnal in its habits.

205. *ÆDIGNEMUS VERMICULATUS*. (Vermiculated Thick-knee.)

Recorded by Mr. Ayres from the Umfuli and Rwerwe, but I have not yet recognized the species.

206. *CURSORIUS TEMMINCKI*. (Temminck's Courser.)

Fairly common, being found in small flocks in open country where the grass is sufficiently short, and especially on the new "burus" in spring. It relies much on its running powers, which are certainly remarkable for so small a bird; it is also fairly strong on the wing, the course of its flight being usually semicircular.

207. *RHINOPTILUS CHALCOPHTERUS*. (Violet-winged Courser.)

A single specimen of this scarce Courser has been brought to me; it was shot in close proximity to the town.

208. *LOBIVANELLUS LATERALIS*. (Wattled Plover.)

This large Plover is plentiful in open country in the neighbourhood of streams or vleis, where it appears to feed chiefly on beetles. It is usually found in small flocks, but occasionally 50 to 100 may be seen together. These birds are noisy on the wing, and seem to move about a good deal at night, when they may often be heard calling. I once observed two, presumably male, birds fighting, and I noticed that they made considerable use of the powerful spurs on the wings as weapons of offence.

209. *OXYECHUS TRICOLLARIS*. (Treble-collared Sandpiper.)

This species is common during the wet season, running about the margins of pools and rivers either singly or in pairs. It has a jerky gait, and will run rapidly for a short distance and then stop short and bob its head up and down. Its flight is strong, but seldom long sustained, and when flushed it will generally return in a short time to its favourite pool.

210. *TRINGOIDES HYPOLEUCUS*. (Common Sandpiper.)

A fairly common migrant in our summer; it is a solitary bird, and resembles the preceding species in its general habits.

211. *TOTANUS CANESCENS*. (Greenshank.)

The Greenshank reaches us from Europe about September, and is to be found in small flocks along the river-beds, more especially wherever there are any stretches of sand. It is a somewhat wary bird and flies strongly, often at a considerable elevation.

212. *GALLINAGO NIGRIPENNIS*. (Black-quilled Snipe.)

In the earlier days Snipe used to be fairly plentiful in the low-lying ground round Salisbury, and very respectable bags have often been obtained; but recently they appear to have become a good deal scarcer, possibly owing to a succession of several dry years.

213. *ROSTRATULA CAPENSIS*. (African Painted Snipe.)

Very much scarcer than the preceding.

214. *IBIS ÆTHIOPICA*. (Sacred Ibis.)

I have examined a single female specimen of this bird which was shot on the Makabusi river, not far from Salisbury.

215. *HERODIAS BUBULCUS*. (Buff-backed Egret.)

A common species, though, like many other water-loving birds, it has been decidedly less plentiful during the recent dry summers. Flocks of 20 or 30 may occasionally be seen

about the commonage. Its habit of feeding on cattle-ticks has often been alluded to, and the Mashonas have dubbed it "Mafudsa-ngombo" (the cattle-herd) in recognition of this. However, the stomachs of three birds examined this season contained none of these creatures, but only fish, larvæ of dragon-flies, grasshoppers, a large spider, and a water-bug.

216. *HERODIAS BRACHYRHYNCHIA*. (Short-billed White Egret.)

A single specimen in Mr. Swynnerton's collection seems to be referable to this species.

217. *HERODIAS GARZETTA*. (Little Egret.)

This species is evidently very much scarcer than *H. bubulcus*, and is a more water-loving bird.

218. *ARDEA CINEREA*. (Common Heron.)

Fairly common, but usually occurring singly.

219. *ARDEA PURPUREA*. (Purple Heron.)

Only two females of this species have come under my notice, both of which were shot close to Salisbury.

220. *ARDEA GOLIATH*. (Goliath Heron.)

Seen by Mr. Ayres, but not procured.

221. *NYCTICORAX GRISEUS*. (Night-Heron.)

I have examined a pair of these birds which were obtained in the Salisbury district.

222. *BUTORIDES ATRICAPILLA*. (African Black-headed Heron.)

Mr. Ayres found this species rare on the Umfuli river.

223. *ARDETTA STURMI*. (African Dwarf-Bittern.)

A fairly common bird, occurring in pairs along streams and vleis where there are bushes close to the water's edge, for in these it is wont to perch. It is by no means shy, and the flight is slow and heavy. It utters a loud croaking cry when flushed, but I am not aware that it possesses the power of "booming" like the Common Bittern. This species feeds to a considerable extent on insects as well as on fishes.

224. *SCOPUS UMBRETTA.* (Hammerkop.)

Though never very plentiful, a few pairs of this singular bird are to be found on almost every stream. I have not often had an opportunity of witnessing their weird gambols; but a short time ago I discovered three of them as they were solemnly dancing round one another, bowing and flapping their wings and exhibiting all sorts of strange antics, the whole performance appearing all the more ludicrous in so stolid-looking a bird. They are readily approachable, and usually their flight is somewhat laboured, though occasionally I have seen one rise in big circles higher and higher until almost out of sight and then descend swiftly again to the water. They are fond of frequenting a limited area for a considerable time, and will always return to their favourite spot if not too rudely disturbed. The singularly large nests of this bird have often been described; they are generally placed in rather inaccessible places, but the only one I know of in this locality has been built on a broad tree-trunk projecting over a stream.

225. *CICONIA NIGRA.* (Black Stork.)

I have seen but very few specimens of this handsome Stork.

It is remarkable that we have not met with any examples of the common White Stork as yet, for, although their migrations are erratic, yet there have been plenty of locusts to attract them during the last six years. It is possible that their line of migration may lie more to the westward, as Mr. Buckley met with them in immense flocks in Southern Matabeleland, whereas in the Transvaal Mr. Ayres says they are rare visitants and do not seem to follow the locust-swarms thither.

226. *CICONIA ALBIVENTRIS.* (White-bellied Black Stork.)

A few small parties of this species have been observed round Salisbury during the past summer. The soft parts of a specimen in my collection were as follows:—Bill jade-green, tip dull red; iris brown; bare parts of face thus: forehead pinkish white, chin and a large spot in front of eye crimson, remainder blue; knees and toes dull crimson, rest of legs

dark greenish. The stomach contained many remains of much digested beetles.

227. *MYCTERIA SENEGALENSIS*. (African Jabiru.)

This grand bird is decidedly scarce, and I have seen only a few single examples at long intervals. One has been shot recently not far from Salisbury.

228. *LEPTOPTILUS CRUMENIFER*. (African Marabou.)

Although I have never personally seen this species to the north of the Limpopo, I have heard of its occurrence in several parts of Mashonaland, and one was shot by Mr. Jameson on the Umfuli.

229. *ANASTOMUS LAMELLIGERUS*. (African Openbill.)

I saw a single specimen of this curious Stork in January last, sitting on the summit of a tree overhanging the Makabusi river, about two miles from the township.

230. *PHALACROCORAX LUCIDUS*. (South-African Cormorant.)

A common species, occurring singly or in pairs along every river, sitting on the rocks or overhanging branches. On the Umfuli I noticed that a dozen or more would collect together to roost for the night in some overhanging bush, though they separated during the day.

Examples of another Cormorant with black underparts have occasionally been observed, but not yet identified.

231. *PLOTUS LEVAILLANTI*. (African Darter.)

Obtained by the Jameson expedition.

232. *PLECTROPTERUS GAMBENSIS*. (Spur-winged Goose.)

Fairly common in suitable localities throughout the country, but I have always found it to be a very shy bird. A flock of them may occasionally be seen flying high over the town in their usual V-shape formation; but the Makabusi is too small a stream to attract them much.

233. *SARCIDIORNIS MELANONOTA*. (Knob-billed Duck.)

The only specimen I have seen was one shot by Mr. J. ff. Darling on the Upper Mazoë, in 1894.

234. *NETTAPUS AURITUS*. (African Dwarf Goose.)

Not very common and only met with at intervals; but it is probably plentiful where fair-sized pools of water are to be found, for I have seen it in large flocks both in Natal and in the "pans" on the Transvaal high veldt.

235. *CHENALOPEX ÆGYPTIACUS*. (Egyptian Goose.)

Observed by Mr. Ayres.

236. *ANAS UNDULATA*. (Yellow-billed Duck.)

Not very common; but the country round Salisbury does not appear to be attractive to Ducks of any kind.

237. *PÆCILONETTA ERYTHORHYNCHA*. (Pink-billed Duck.)

This is our ordinary species of Duck, and a fair number have been shot in the vleis round the township this summer.

238. *PODICIPES CAPENSIS*. (Cape Dabchick.)

A few years ago I used to see these birds rather commonly; but in the last two seasons only a single specimen, shot by Mr. Swynnerton, has come under my notice.

239. *STRUTHIO AUSTRALIS*. (Southern Ostrich.)

The Ostrich is still to be seen sparingly in Mashonaland, more especially wherever there is any extent of open grassy country. During last summer a flock of four frequented the Gwibi flats, some eight miles north of Salisbury. I am informed that they bred there, but that the nest was robbed by Kafirs, who doubtless do much towards keeping down the numbers of this characteristic bird.

Salisbury, Mashonaland,
May 1899.

APPENDIX.

[Capt. Shelley has received (12th Feb., 1900) a letter from Mr. Guy A. K. Marshall (dated Jan. 1st, 1900, from Salisbury, in Mashonaland), requesting him to add the following species to the list of Mashonaland Birds.—EDD.]

164a. *NISAËTUS SPILOGASTER*. (Spot-bellied Eagle.)

I have lately shot a large Hawk (24 inches), with feathered

toes, off her nest, which I cannot identify for certain, but presume to have been of this species.

169*a*. *PERNIS APIVORUS*. (Honey-Buzzard.)

I found on the veldt near Salisbury a female with a partially healed broken wing. The body was thin, but the stomach was crammed full, and the crop contained a chameleon and a number of locusts of various species.

173*a*. *FALCO BIARMICUS*. (South-African Lanner.)

A specimen was shot by Mr. Swynnerton at the Umcheki river in June.

179*a*. *SCOPS LEUCOTIS*. (White-eared Owlet.)

One specimen has been obtained, shot near Salisbury.

187*a*. *CHALCOPELIA AFRA*. (Emerald-spotted Wood-Dove.)

Not uncommon near the Shagari river.

192*a*. *PTERNISTES SWAINSONI*. (Swainson's Francolin.)

Common along the Shagari river, between the Umfuli and Umniati rivers, where it entirely replaces *P. nudicollis*.

195*a*. *CREX PRATENSIS*. (Corn-Crake.)

Fairly plentiful; but I have never heard its peculiar call-note uttered here.

197*a*. *GALLINAGO CHLOROPUS*. (Moorhen.)

Common near the Chirbi river, frequenting the reedy banks of the pools, which are overgrown with water-lilies.

197*b*. *PORPHYRIO ALLENI*. (Allen's Porphyrio.)

Gurbi river. The only specimen seen (an adult female) was obtained on the Gurbi river in December last.

211*a*. *TOTANUS STAGNATILIS*. (Marsh Sandpiper.)

A pair shot near Salisbury.

211*a*. *HERODIAS ALBA*. (Great White Egret.)

Obtained on the Lower Gurbi river.

230*a*. *PHALACROCORAX AFRICANUS*. (African Shag.)

This Cormorant is common on the Shagari, Gurbi, and Kiroshuro rivers.